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GENERAL STUDIES (TEST CODE : 1440)

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Medium Eng./Hindi	English	Registration Number	39215
Center		Date	20-8-19

INDEX TABLE			INSTRUCTIONS
Q. No.	Maximum Marks	Marks Obtained	1. Do furnish the appropriate details in the answer sheet (viz. Name, Registration Number and Test Code). उत्तर पुस्तिका में सूचनाएं भरना आवश्यक है (नाम, प्रश्न-पत्र कोड, विद्यार्थी क्रमांक आदि)। 2. There are TWENTY questions printed in ENGLISH & HINDI इसमें बीस प्रश्न हैं अंग्रेजी और हिन्दी में छपे हैं। 3. All questions are compulsory. सभी प्रश्न अनिवार्य हैं। 4. The number of marks carried by a question/part is indicated against it. प्रत्येक प्रश्न/भाग के अंक उसके सामने दिए गए हैं। 5. Answers must be written in the medium authorized in the Admission Certificate, which must be stated clearly on the cover of this Question-Cum-Answer (QCA) Booklet in the space provided. No marks will be given for answers written in medium other than the authorized one. प्रश्नों के उत्तर उसी माध्यम में लिखे जाने चाहिए जिसका उल्लेख आपके प्रवेश पत्र में किया गया है और उस माध्यम का स्पष्ट उल्लेख प्रश्न-सह-उत्तर (क्यूसीए) पुस्तिका के मुख्य पृष्ठ पर अंकित निर्दिष्ट स्थान पर किया जाना चाहिए। उल्लिखित माध्यम के अतिरिक्त अन्य किसी माध्यम में लिए गए उत्तर पर कोई अंक नहीं मिलेंगे। 6. Word limit in questions, if specified, should be adhered to. प्रश्नों में शब्द सीमा, जहाँ विनिर्दिष्ट है, का अनुसरण किया जाना चाहिए। 7. Any page or portion of the page left blank in the Question-Cum-Answer Booklet must be clearly struck off. उत्तर पुस्तिका में खाली छोड़ा हुआ पृष्ठ या उसके अंश को स्पष्ट रूप से काटा जाना चाहिए।
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Total Marks Obtained:			
Remarks:			
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EVALUATION INDICATORS

1. Contextual Competence
2. Content Competence
3. Language Competence
4. Introduction Competence
5. Structure - Presentation Competence
6. Conclusion Competence

Overall Macro Comments / feedback / suggestions on Answer Booklet:

1.

2.

3.

4.

5.

6.

All the Best

1. Among various modes, trade played an important role in the spread of Indian culture abroad in the ancient period. Discuss. (150 words) 10

विविध साधनों के साथ-साथ, व्यापार ने भी प्राचीन काल में विदेशों में भारतीय संस्कृति के प्रसार में महत्वपूर्ण भूमिका निभाई है। चर्चा कीजिए।

The ancient Indian period

saw spread of Indian culture far & wide, whether that be in art and architecture or religions like Buddhism.

An important factor in facilitating this exchange was trade.

It did so in many ways:-

① Rulers and kings facilitated trade b/w countries and patronized traders which led to exchanges. eg. Ashoka spreading Buddhism to Sri Lanka.

② Maritime links, esp.

between the southern Kingdoms like Pallavas, Cholas, Pandyas and the of South East Asian countries spread ~~into~~ Indian Culture. eg. Indian cultural practices followed in Java and Cambodia.

③ Silk route facilitated to spread of Buddhism to China & Central Asia

④ Trade increased prosperity and made resources available to patronize & facilitate cultural practices & exchanges.

Trade further led to increased educational, social interaction & hence spread Indian culture.

2. Netaji Subhas Chandra Bose was a far-sighted realistic leader with great diplomatic and military skills. Discuss in the context of his contribution to national freedom struggle. (150 words) 10

नेताजी सुभाष चंद्र बोस उत्कृष्ट राजनयिक और सैन्य कौशल रखने वाले एक दूरदर्शी यथार्थवादी नेता थे। राष्ट्रीय स्वतंत्रता संघर्ष में उनके योगदान के संदर्भ में इस पर चर्चा कीजिए।

Netaji Subhas Chandra Bose was one of the greatest leaders of the Indian freedom struggle whose activities advanced the cause of Indian Independence. His qualities led to major achievements in the struggle:-

I) Far Sightedness

- ① Supported organization of Indian Society on socialist lines. Was a left leaning politician.
- ② Gave equal importance to participation of women. e.g. ~~the~~ women regiment in INA.

II) Realistic

- ① Advocated for support of

other powers who were
adversaries of England in
the struggle.

- ② Formed forward bloc.

II) Diplomatic & military skills

- ① met with Germany & gained support.
- ② Convinced Japanese to release Indian POW's to him & formed IWA.
- ③ Trained & created IWA into a formidable force.
- ④ Formed ~~provisional~~ provisional govt. in Singapore.

Therefore, his contributions
weakened British power
& provided support to
Indian freedom struggle.

3. Enumerate the factors responsible for the decline of Mughal empire in India. How did it help in the expansion and consolidation of British power?

(150 words) 10

भारत में मुगल साम्राज्य के पतन के लिए उत्तरदायी कारकों को सूचीबद्ध कीजिए। इसने ब्रिटिश शक्ति के विस्तार और सुदृढ़ीकरण में किस प्रकार सहायता प्रदान की?

The Mughal empire started declining with the death of Aurangzeb in 1707.

Factors

- ① Succession of weak rulers
- ② Discontent among various groups like Rajputs, Jats etc.
- ③ Excessive financial burden due to mansabdari, maintenance of court, nobles etc.
- ④ Rise of regional powers like Marathas.
- ⑤ Strong regional leaders who were ~~earlier~~ servants of Mughal empire leading to succession states eg Bengal, Hyderabad, Awadh.

⑥ Invasions by outsiders

The fall of the empire gave an impetus to British to gain control as:-

- ① No central ~~strong~~ strong power
- ② Created conflict b/w regional rulers of which British took advantage.
- ③ No regulation → British exploiting trade terms to get more resources.
- ④ Provided use of Indian soldiers.

Thus along with the various tactical plans of British helped them gain control over India.

4. Though the conditions in France were vastly different from those in America, many of the driving factors behind the two revolutions were similar. Discuss in the context of French revolution. **(150 words) 10**

यद्यपि फ्रांस में परिस्थितियां अमेरिका की परिस्थितियों से बहुत भिन्न थीं, तथापि इन दो क्रांतियों के पीछे कई प्रेरक कारक समान थे। फ्रांसीसी क्रांति के संदर्भ में चर्चा कीजिए।

The American revolution took place against the oppressive British rule and served as an inspiration to France. ~~as~~ Even though France was not under colonial rule, causes of discontent were similar:

① Oppressive State:-

- French monarch was absolute ruler who neglected his people.
- British were oppressive towards Americans

② Economic conditions:-

- Wars, Famines had spread discontent in France and people were facing starvation.
- The Americans faced

unreasonable taxes from
British like Stamp Tax, Tea Tax
etc and restrictions on
trade, exports etc.

③ Unequal Rights & Discrimination

- The French society was divided into 3 estates with the 1st ~~two~~ paying no taxes but deciding the laws. The Third estate faced all tax burden but had no say in governance.
- The American revolution was based on 'no taxation without representation'.

④ Intelligensia

- French philosophers like Montesquieu propagated accountable governance.
- American enlightenment led to their Declaration of Independence.

Thus, the core ideas & justifications for both movements were similar.

5. Globalization has been a significant force in shaping the contemporary education system in India in both positive and negative ways. Examine.

(150 words) 10

वैश्वीकरण, सकारात्मक और नकारात्मक दोनों प्रकार से भारत की समकालीन शिक्षा प्रणाली को आकार देने में एक महत्वपूर्ण शक्ति रहा है। परीक्षण कीजिए।

Globalization refers to the system of free flow of goods, services, people and ideas across borders. It has influenced all aspects of Indian society in both positive & negative ways.

Positive effect on Education

- ① Brought in latest Scientific and liberal arts research and doctrines.
- ② Helped Indian students compete at a global level & go to world class institutions abroad.
- ③ Brought in new disciplines of study & increased choice.

- ④ Increased Knowledge about outside world
- ⑤ Use of Technology in imparting education.

Negative effects

- ① Reduced focus on traditional Indian Knowledge & achievements.
- ② Increased inequalities as only a few have been able to benefit.
- ③ Imposed western ideas & western model of education regardless of suitability.

There is a need therefore to incorporate the best of both worlds in the education system by promoting local knowledge as well as western ideas.

6. The lack of clarity over what constitutes an urban area encourages haphazard development pattern in India. Discuss. (150 words) 10

शहरी क्षेत्र का गठन करने वाले तत्वों के संबंध में स्पष्टता की कमी भारत में अनियोजित विकास प्रतिरूप को प्रोत्साहित करती है। चर्चा कीजिए।

There is increasing migration to and development of urban areas in India requiring urgent policy steps. As per 2011 Census, 31.1% of population lives in urban area. However, there are issues with what constitutes an urban area on many factors:-

- ① State & central govt. differs.
- ② Issue of what occupations to be considered.
- ③ Limits of area.
- ④ metropolitan area definition.
- ⑤ Population, whether census town or not etc.

This confusion leads to many problems:-

- ① Improper planning.
- ② Overlapping laws
- ③ Power struggle b/w various levels of government. over ~~control~~ control.
- ④ ~~too~~ Wastage of resources

All this leads to haphazard development.

There is a need to uniformly & clearly define an urban area to facilitate targeted & efficient development of the city.

7. Regionalism need not be regarded as unhealthy unless it takes a militant, aggressive turn and encourages the growth of secessionist tendencies. Discuss. (150 words) 10

क्षेत्रवाद को तब तक हानिकारक नहीं माना जाना चाहिए जब तक कि यह उग्रवादी एवं आक्रामक रुख न अपनाए तथा अलगाववादी प्रवृत्तियों को बढ़ावा न दे। चर्चा कीजिए।

Regionalism refers to the assertion of a regional identity based on some socio-economic, cultural differences in a particular area within the nation.

Normally, regionalism might not be unhealthy as it can lead to many benefits:-

- ① It can better organize people & convey their demands to the state.
e.g. North East - 6th schedule.
- ② Can lead to addressing of concerns & better representation. e.g. New States created like Chhattisgarh, Uttarakhand etc.

③ Address socio-economic
developmental concerns

eg. Telengana creation

④ Lead to healthy competition

All this helps channel demands & opinions of regions & strengthens democracy.

However, it can also lead to negative consequences:-

① Provide impetus to secessionist movements & violence. eg. Punjab, Nagaland.

② Violence against fellow citizens in name of 'outsider' tag. eg. Maharashtra.

③ Create inter-regional disputes i.e. water sharing disputes.

~~These~~ Regional aspirations therefore need to be balanced & democratically addressed to strengthen the nation.

8. Mention the conditions responsible for occurrence of Temperature Inversion in atmosphere. Elaborating on its various types, highlight its effects on the biosphere. (150 words) 10

वायुमंडल में तापमान व्युत्क्रमण की घटना हेतु उत्तरदायी परिस्थितियों का उल्लेख कीजिए। इसके विभिन्न प्रकारों का सविस्तार वर्णन करते हुए, इसके द्वारा जैवमंडल पर पड़ने वाले प्रभावों पर प्रकाश डालिए।

Normally, temperature decreases with increasing height. But under special circumstances, this changes and air above is warmer than air below. This is called inversion.

Conditions

- ① Long winter night
- ② Clear skies
- ③ Stable air
- ④ Cool ground surface.

Types

- ① Surface - On cool winter night, ~~an~~ earth radiates heat till air above is warmer than ground below.

- ⑤ Valley - Today, the cold air is heavier & sink down ~~slope~~ to the ~~bottom~~ valley when valley becomes colder than air on slope.

Effects

- ① Fog formation
- ② Reduces visibility
- ③ Leads to creation of frost which can cause damage to plants on surface.
- ④ Facilitates movement of air ~~and~~ leads
- ⑤ ~~to~~ leads to drier conditions.

9. Assess the feasibility of introducing two time zones in India in the wake of recent proposal made by Council of Scientific and Industrial Research (CSIR). (150 words) 10

वैज्ञानिक तथा औद्योगिक अनुसंधान परिषद (CSIR) के हालिया प्रस्ताव के आलोक में भारत में दो टाइम ज़ोन लागू करने की व्यवहार्यता का मूल्यांकन कीजिए।

The Indian standard time zone ~~proposed~~ is the $82\frac{1}{2}^{\circ}$ E longitude which is $5\frac{1}{2}$ hrs ahead of standard time.

However, this creates a diff. of almost 2 hrs between the westernmost & easternmost parts of the country.

This causes problems in the north-east of loss of daylight hours & consequent issues.

CSIR has proposed a new time zone for north east at ~~89° 52' E~~ $95^{\circ} 52' E$.

Benefits

- ① Daylight hours corresponding with office? school hours.

- ② Maintenance of proper circadian rhythm of people.
- ③ Reduced electricity consumption
- ④ Enhance productivity of people.

Issues :

- ① Changing of clocks for transportation, ~~etc~~ which increases possibility of a confusion accidents.
- ② Administrative hassles
- ③ Lack of coordination between industries service providers
- ④ Alienation of people:

Therefore, any such move should be considered after proper feasibility studies.

10. Discussing the reasons behind disappearance of springs, examine how springshed management can help revive springs, especially in the Himalayan region. (150 words) 10

झरनों के विलुप्त होने के पीछे निहित कारणों पर चर्चा करते हुए, परीक्षण कीजिए कि किस प्रकार स्प्रिंगशेड प्रबंधन झरनों, विशेषकर हिमालयी क्षेत्र में झरनों को पुनर्जीवित करने में सहायता कर सकता है।

Spring is a place where underground water flows out on the surface. It provides water for various uses, esp. in mountainous regions.

Recently, there have been concerns over disappearance of springs. Reasons are:-

- ① Climate change
- ② Decline in Rainfall
- ③ Pollution
- ④ Deforestation & Soil erosion
- ⑤ Excessive use
- ⑥ Urbanization

③ Tectonic activity.

Springshed Management

Springshed is the area covered by the discharge point of the spring where recharge occurs.

Springshed management can help in revival in following ways:

- ① Scientific tests & mapping of springs.
- ② Measures to enhance recharge.
- ③ Promoting efficient water use.
- ④ Spreading awareness about sustainable use.

This can lead to a comprehensive plan for revival.

11. India has a long civilizational history. In this context, highlight the significant contributions from ancient India in science, mathematics and medicine. (250 words) 15

भारत का सभ्यता संबंधी एक लंबा इतिहास रहा है। इस संदर्भ में, विज्ञान, गणित और चिकित्सा के क्षेत्र में प्राचीन भारत के महत्वपूर्ण योगदानों पर प्रकाश डालिए।

In the course of Indian history, there have been many great contributions made to various fields with many Indians being pioneers to new ideas. Some of them are as follows:-

I) Sciences

- ① Aryabhatta predicted accurate astronomical models for eclipses
- ② Brihat Samhita gives information about Earth's movement
- ③ Various techniques were developed to make

metals more resistant.

- ④ Vaisheshika school of philosophy postulated physics principles.

II) Mathematics

- ① Zero was given by India.
- ② The currently used notational system was taken from India by the Arabs.
- ③ Subashita gave accurate geometric principles.
- ④ From Mathematicians like Arjibhatta & Bhaskaracharya ~~lost to do~~ gave principles of trigonometry, algebra etc.

III) Medicine

- ① Ayurveda which is practiced till today evolved in ancient India
- ② Charak Samhita provides list of diseases as well as plants & herbs to cure them
- ③ Sushrut Samhita has procedure for plastic surgery & other details of human anatomy
- ④ Yoga was developed by Patanjali to keep body & mind healthy

Ancient India has thus made immense contributions in these fields. However, these do not find enough attention in the current educational system. There is a need to incorporate these achievements to better understand the contributions made

12. Over the years, the nationalist movement successfully created an ideology and culture of democracy and civil liberties that became a source of its strength. Discuss. (250 words) 15

समय के साथ, राष्ट्रवादी आंदोलन ने लोकतंत्र और नागरिक स्वतंत्रताओं की विचारधारा और संस्कृति का सफलतापूर्वक सृजन किया जो इसकी शक्ति का स्रोत बनीं। चर्चा कीजिए।

The Indian national movement was broad based in its objective. It did not only wish to secure independence from British. It also wanted to create the foundation of a democratic society which would respect civil liberties of all.

In this light, the activities within the movement promoted the above mentioned ideas:

I) Democracy

① mass movements encouraged people's participation

- ② The movement was open to all
- ③ The leadership of the movement in the INC was organized on democratic lines with CWC, elections etc.
- ④ Different groups existed within the INC like Socialists, Communists, Shwari party, Trade Unions etc.

Civil Liberties

- ① Kanawhi resolution of 1931 mandated civil liberties for all and freedom of speech.
- ② Congress ministries ~~after~~ formed prior to independence subverted Civil liberties & released many political prisoners.
- ⑤ Measures to curb liberties

like Public Safety Bill etc
were opposed

④ Trade union, Kisan
Sabhas were supported.

⑤ It was also recognized
that true liberty will
only come with social
and economic freedoms,
which were guaranteed by
Karachi resolution.

Therefore, the national
movement led to the
creation of a democratic
and representative nation
which guaranteed
~~for~~ civil liberties
as fundamental rights
in the Constitution.

13. Critically discuss the contribution of the Indian capitalist class in the freedom struggle. (250 words) 15

स्वतंत्रता संघर्ष में भारतीय पूँजीपति वर्ग के योगदान पर समालोचनात्मक चर्चा कीजिए।

Various groups and sections of society participated in the Indian freedom struggle.

The capitalists did not play an active role initially but got involved in the movement from the 1920's with advent of mass struggle.

They made some important Contributions:-

- ① Provided financial support to movement.
- ② ~~But~~ Helped in development of indigenous industries, facilitating calls of boycott.

- ③ Despite efforts by British, did not support the Colonial government against INC.
- ④ Brought demands such as protection of indigenous industries, favourable exchange rate, ban on foreign investment etc. into the national movement to promote economic security of the country.
- ⑤ Supported mass movements at initial stages.
- ⑥ Developed mechanism for state support to industry and equitable development.
e.g. Bombay Plan.

Despite this, the capitalists had some misgivings with the national movement:-

- ① They did not support protected mass movements as it would affect business activities & stability.
- ② They were concerned about leftward shift of politics.

However, these musings did not lead them to the British. Instead, they worked to increase their own influence in politics and even facilitated negotiations with British if required. The Indian Capitalist class was against socialism but not pro-imperialist. It whole-heartedly protested against colonial rule.

14. Equitable distribution of land plays an important role in bringing about socio-economic transformation. In this regard, analyse the progress of land reforms measures taken in India since independence. (250 words) 15

भूमि का न्यायसंगत वितरण सामाजिक-आर्थिक रूपांतरण लाने में एक महत्वपूर्ण भूमिका निभाता है। इस संबंध में, स्वतंत्रता के पश्चात् भारत में किए गए भूमि सुधार उपायों की प्रगति का विश्लेषण कीजिए।

Land is an important determinant of ~~socio status~~ Society, esp in rural areas. Land reforms refer to measures to change the ownership & control patterns of land to lead to equitable distribution.

They help in bringing about Socio-economic transformation as:

- ① Gives ownership to actual cultivators & hence increases their socio-economic status.
- ② Reduces concentration of land in a few hands.
- ③ Increases productivity.

- ④ Creates equitable power distribution

Post independence, India carried out various forms of land reforms to achieve the above mentioned objectives:-

- ① Zamindari Abolition
- ② Land ceiling
- ③ Tenancy reforms i.e. giving ownership to tenants.

These reforms led to various benefits:-

- ① Reduced absentee landlordism
- ② Removed illegal cesses & taxes.
- ③ Reduced Abolished the practice of exorbitant rents & dependence on moneylenders.
- ④ Tenants became owners

well as cultivators thus
increasing their control over
land & production methods.

However, despite some successes,
many issues were faced which
continue till today.

- ① Many tenants were dispossessed
prior to this and created
problem of landless labourers
- ② ~~Which~~ Reforms were not implemented
due to legal challenges, lack of
political will etc.
- ③ Ceiling limits were set
too high & zamindari abolition
rules were bypassed leading
to effective concentration in
the hands of upper classes.

Therefore, there is a need
to implement these reforms in
their true spirit to bring about transformation

15. State the factors that have influenced India's population growth trends. Also, enlist some measures taken by the government for attaining population stabilization. (250 words) 15

उन कारकों का वर्णन कीजिए जिन्होंने भारत की जनसंख्या वृद्धि की प्रवृत्ति को प्रभावित किया है। साथ ही, जनसंख्या स्थिरीकरण का लक्ष्य प्राप्त करने हेतु सरकार द्वारा उठाए गए कुछ कदमों को भी सूचीबद्ध कीजिए।

India is expected to surpass China as the world's most populous country by 2027. However, efforts have been made to stabilize population growth. India has been able to reduce its fertility rate which is 2.2 as per recent SRS data.

Population trends in the country are influenced by various factors:-

- ① Literacy rates - Higher levels of education result in lower fertility rates
eg. - Kerala which has TFR of

1.7. Regions with low literacy have higher population growth rate. eg. northern states.

② Economic development

leads to higher income, access to better healthcare facilities which reduces population growth as people prefer to have fewer children & give them a better life.

③ In rural areas, demand for labour, ~~low~~ high mortality etc lead to higher population trends.

④ Social factors such as patriarchy, son preference etc affect population trends.

In this light, the government has undertaken various

Steps:-

- ① Promoting education & spread of economic development to the grassroots.
- ② Focusing on women's health & education through Tanam Sulekha yoga, ICDS scheme etc.
- ③ Mission Parivaar Vikas to target high TFR districts.
- ④ Promoting use of contraceptives
(~~Contraceptives~~) like Antara, & Chaya.
- ⑤ Spreading awareness through programmes like Vasectomy, Fortnight, Seas-Behn, Sammelans etc.
- ⑥ Promoting institutionalised child birth.

This would help achieve replacement level TFR of 2.1.

16. Examine the contemporary trends and reasons for change in the traditional family structure in India. Discuss the reforms needed in the existing social security protection measures in this regard. (250 words) 15

भारत में परिवार की पारंपरिक संरचना में परिवर्तन की समकालीन प्रवृत्तियों और इसके कारणों का परीक्षण कीजिए। इस संबंध में वर्तमान सामाजिक सुरक्षा उपायों में आवश्यक सुधारों की चर्चा कीजिए।

The traditional family structure in the country has been that of joint families. However, in recent times there has been a shift towards nuclear & smaller families. There has also been a rise in single parent families.

Reasons for Change

- ① Fragmentation of joint holdings like land.
- ② Migration of people to cities in search of employment, better living conditions etc.

- ③ Economic burdens making it easier to support small families
- ④ Penetration of ideas of individual freedoms & lifestyle which has affected traditional structures
- ⑤ Urbanization & limited space leading to smaller units living together
- ⑥ More freedom to women & their empowerment and financial independence leading to ~~divorce~~ single adoptions etc.
- ⑦ Divorce

These changes require ~~these~~ ~~changes~~ reforms in the existing social protection measures:-

- ① Enhanced protection

for the elderly population
as they often live alone
with no support. Need
Care-takers, health support etc.

- ② Legal & institutional
framework to protect
~~weak~~ vulnerable women &
support to single women
families to stop any
discrimination
- ③ Childcare measures like
paternity benefits, creches,
work from home etc.
- ④ Development of urban
infrastructure to support
migration. Benefits such as
insurance, affordable housing etc.
- ⑤ Community emotional support
to counter loneliness &
depression.

This would ensure healthy
development of society in new structures

17. Differentiate between eustatic and isostatic type of sea-level changes. Also, discuss the resultant landforms which are likely to be formed as a result of sea-level fluctuations. (250 words) 15

सुस्थितिक और समस्थितिक प्रकार के सागर तल परिवर्तनों के मध्य अंतर स्पष्ट कीजिए। साथ ही, सागर-तल के उतार-चढ़ाव के परिणामस्वरूप निर्मित होने वाली संभावित परिणामी भू-आकृतियों की भी चर्चा कीजिए।

Sea level changes happen due to a variety of reasons, most common being tides. There can be 2 types of changes:-

① Eustatic

This happens when there is a change in volume of water or shape of ocean basin changes. This affects the amount of water that can be held

and hence induces sea-level change. ~~A~~ This affects sea-level worldwide.

② Isostatic

This happens due to change in position of land with respect to sea. When height of land rises, it causes consequent loss in sea level. There are local changes.

Landforms

2 types of ~~Landforms~~
landforms are created :-

① Emergent

Rise in level of land causes
erosion and beach
formation.

② Submergent

Rise in sea levels causes
formation of :-

- a) Fjords - steep sides
- b) River valleys.

18. What are the forces that drive the movement of lithospheric plates? In this context, identify the different types of plate boundaries based on their nature of interaction with suitable examples of the characteristic features formed along them. (250 words) 15

स्थलमंडलीय प्लेटों को संचलित करने वाले बल कौन-से हैं? इस संदर्भ में, उनके किनारे निर्मित अभिलाक्षणिक विशेषताओं के उपयुक्त उदाहरणों के साथ उनकी अंतरक्रिया की प्रकृति पर आधारित विभिन्न प्रकार की प्लेट सीमाओं की पहचान कीजिए।

Lithospheric plates or
tectonic plates are
slabs of rock which
form the Earth's crust.

These can be Continental
or oceanic.

According to the Theory
of Plate Tectonics, these
plates are continuously
moving and causing
changes in landform
patterns and crust
formation.

Movement

- ① The earth's core & mantle consist of molten material called magma due to high temperatures in the depth.
- ② The molten magma rises and spreads below the crust, solidifying a little.
- ③ However, the heat in the below the surface again causes this to melt and sink back, leading to new magma coming up.
- ④ This cyclical movement keeps the plates moving.

Types① Divergent ~~Convergent~~ Boundaries -

Plates pull away from each other. This leads to generation of new crust. eg. at mid Atlantic Ridge.

② Convergent Boundary - One plate dives under another and creates subduction zone. Crust gets destroyed ~~here~~ here. eg. fold mountains.③ Transform Boundaries :-

Plates move horizontally past. Crust neither created nor destroyed.

19. Highlight the factors responsible for location of automobile industries in India. Also, examine the challenges in the wake of transformations taking place in the automotive industry. (250 words) 15

भारत में ऑटोमोबाइल उद्योगों की अवस्थिति के लिए उत्तरदायी कारकों पर प्रकाश डालिए। साथ ही, ऑटोमोटिव उद्योग में हो रहे परिवर्तनों के आलोक में चुनौतियों का भी परीक्षण कीजिए।

The automobile industry is a major contributor to the economy, providing about 7.1 of the GDP and about 34 million jobs.

The location factors in India are :-

① Raw materials - Located where ancillary & spare parts, accessories etc.

are created. eg. in Gujarat region.

② Access to markets - Proximity to consumers increases

chances of sale and
reduces transportation cost.
eg. Delhi-NCR region.

③ Infrastructure - Favourable
power supply, technical
labour, reasonable
wages etc. eg.

in Tamil Nadu is Chennai.
gets uninterrupted power
supply.

④ Govt. policies - Favourable
policies facilitate setting
up of Industry. eg.
Shift in Tata nano
plant from West Bengal
to Gujarat.

Challenges in Transformation

- ① New emission standards like BS VI.
- ② Increased focus on environmental sustainability.
- ③ Promotion of public transport by state.
- ④ Division & fragmentation of market into different types of automobiles.
- ⑤ New technologies like AI driven cars.
- ⑥ Reducing consumer demand.

These challenges need to be addressed to ensure proper growth of the sector.

20. Identify the major Uranium reserves in the world and the countries from where India sources it. What measures are required to ensure supply security of fuel for nuclear plants in the country? (250 words) 15

विश्व के प्रमुख यूरेनियम भंडारों और उन देशों की पहचान कीजिए जहाँ से भारत इसका आयात करता है। देश में परमाणु संयंत्रों के लिए ईंधन आपूर्ति की सुरक्षा सुनिश्चित करने के लिए किन उपायों की आवश्यकता है?

Uranium is the
raw material for
nuclear energy. It
is found in various
isotopes. like U 235, U 238 etc.

The major reserves of
uranium are:-

- ① Kazakhstan
- ② Australia
- ③ Russia
- ④ Canada

Other countries like South
Africa, Central Asian
countries also have uranium.

reserves.

India

India's reserves are located in Jharkhand { Singbhum }, Andhra Pradesh, Tamil Nadu, Kerala.

The monazite sands in Kerala are a source of uranium as well as thorium.

Despite this, India imports uranium from Kazakhstan, Russia, Australia & Canada as there is less availability in India as well as extraction costs are high.

India also has treaties with France & Namibia for uranium sourcing.

measures to ensure supply

- ① Invest in technology to reduce extraction cost.
- ② Seek other countries as source of imports.
- ③ Create reserves.
- ④ Enhance the nuclear energy programme to foster development of the thorium based reactor.
- ⑤ Negotiate entry into NSG.

This would help in
~~so~~ producing sustainable
nuclear energy